

Jones Beach State Parkway Channel Bascule
Bridge MP-3
(Meadowbrook State Parkway Bridge MP-3)
Meadowbrook State Parkway (Route 908E),
spanning Sloop Channel
Hempstead
Nassau County
New York

HAER No. NY-178

HAER
NY

30-HEMP

10-

PHOTOGRAPHS
WRITTEN HISTORICAL DATA

HISTORIC AMERICAN ENGINEERING RECORD

JONES BEACH STATE PARKWAY CHANNEL BASCULE BRIDGE MP-3
(MEADOWBROOK STATE PARKWAY BRIDGE MP-3)

HAER No. NY-178

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Location: Meadowbrook State Parkway (Route 908E) spanning Sloop Channel southeast of East Bay, Town of Hempstead, Nassau County, New York. Bridge is north of Jones Beach State Park interchange with the Ocean Parkway and Bay State Parkway and 4,500 feet south of interchange M-10 with the Loop State Parkway, east of Jones Inlet.

UTM: N 4495080
E 623260
New York State Quad: Jones Inlet

Date of Construction: Plans prepared in 1933 and bridge constructed in 1934.

Style: The Meadowbrook State Parkway bridge MP-3 is a double leaf, trunnion bascule bridge with forty-three concrete continuous tee beam approach spans.

Engineer/
Builder: Bridge built for the Jones Beach State Parkway Authority under contract number 7. Plans prepared under the authority of A. E. Howland, Chief Engineer and W. Earle Andrews, Deputy Chief Engineer. Shortridge and Hardesty, New York, N.Y., listed as consulting engineers.

Present Owner: Long Island State Parks and Recreation Commission.

Present Use
and Condition: During 1985, the bridge carried an average of 12,416 vehicles per day. The underside of the reinforced concrete tee beams displays efflorescence, heavy map cracking, leaching, and some delamination and spalling has exposed some of the reinforcing steel. Some steel bascule span components exhibit heavy rust, corrosion, and loss of section.

Significance: This bridge is one of the original Meadowbrook State Parkway bridges.

Materials of
Construction: Piles, 50 feet long, 15 inches in diameter, and spaced three feet apart, support the reinforced concrete pier foundations and concrete bent piers. In each approach span six interior longitudinal reinforced concrete tee beams and a concrete fascia girder on both elevations support a reinforced concrete slab deck. The false arch fascia girders are only

found on the first seven approach spans on both sides of the bascule span.

Dimensions:

The double leaf bascule span is 76 feet long. On the north side are nineteen approach spans. On the south side are twenty-four approach spans. All approach spans are 32 feet long. The approach span adjacent to each bascule leaf is built over the bascule leaf counterweight system and has floor beams and girders that are arranged differently from the other approach spans. The total length of the bridge is 1,480 feet, with a deck area of 103,600 square feet. The bridge has an out-to-out width of 70 feet and a curb-to-curb width of 60 feet. A five-foot-wide sidewalk is located on each side of the roadway. The bascule span has a 75 foot 6 inch horizontal clearance between the pier fenders and a vertical clearance for navigation of between 22 and 27 feet. The bascule leaves open to a maximum angle of 65 degrees to permit unlimited vertical clearance for a horizontal distance of 50 feet at the center of the channel. The approach spans rise on a uniform 2.2 percent grade toward the bascule span.

Each bascule leaf has two interior and two exterior bascule girders with an end-to-end length of 59 feet 6 inches. The distance between the center lines of the bascule span trunnions is 93 feet. These bascule girders are formed from riveted plates with a tangentially tapered contour. The main trunnion shaft has a diameter of 20 inches. This shaft is connected to a segmental gear with a radius of 7 feet 6 inches. Approximately 41 feet of the bascule girder supports the stringers and deck. The remaining 19 feet are recessed below the adjacent approach span and support the counterweight system. The bascule span has four separate leaves, with the two leaves on each side of the span operated as a single lifting deck.

Significant Ex-

terior Features: A tower is located at each corner of the double leaf bascule span. The towers, rising up approximately four stories from the water level, have an unadorned stone veneer facade with a band of windows at the top of the operator's control tower. The approach spans have false arch concrete fascia beams.

Major Alterations
and Additions:

Between 1969 and 1972 the bridge deck surface, guard rails, and electrical system were either repaired or replaced under contract LISP 69-2. Also, pile caps were widened, some structural steel was replaced, and rip-rap was dumped at the base of a number of bridge piers.

Additional
Information:

The Meadowbrook State Parkway bridge across Sloop Channel was constructed in 1934 for the Jones Beach State Parkway Authority. This bridge was built under contract number 7 as part of the 12.8 mile long Meadowbrook State Parkway and Causeway.

Project
Information:

The documentation of the Jones Beach State Parkway Channel Bascule Bridge MP-3 was prepared by the Historic American Engineering Record (HAER), National Park Service, during the summer of 1987 for the New York State Historic Bridges Recording Project. This project was sponsored by the New York State Department of Transportation and under the supervision of Eric DeLony, Chief & Principal Architect, HAER. This report was written by Andrew Cole and Charles Scott. When citing this report, please credit the Historic American Engineering Record and the authors.

BIBLIOGRAPHY

History of the Long Island State Parkway System, 1925-1985. Hauppauge, N.Y.:
New York State Department of Transportation, 1985.

Jones Beach State Parkway Authority, Meadowbrook Parkway, Contract number 7
Drawings, July 29, 1933.

New York State Department of Transportation, Bridge Inventory File, Bridge
Number 1059129, Region 10, Hauppauge, New York.

Project Initiation Request, Rehabilitation of the Meadowbrook State Parkway
Bridge over Sloop Channel, MP-3. New York Department of Transportation Region
10, 1980.